

IN THE CLAIMS:

Please cancel claims 1, 2, 4, 7-11 and 17-23.

Please amend claims 3, 5, 6 and 12 as follows:

Please add new claims 24-41 as follows:

1-2. (Cancelled)

3. (Currently Amended) A stent as claimed in claim ~~1~~ 24 wherein the supporting portion of the stent is fabricated to incorporate a non-planar curved form.

4. (Cancelled)

B, 5. (Currently Amended) A stent as claimed in claim ~~1~~ 24 which is of generally hollow tubular shape with three-dimensional curvature.

6. (Currently Amended) A stent as claimed in claim ~~1~~ 24 in the form of an open lattice generally tubular framework with discrete openings at each end thereof.

7-11. (Cancelled)

12. (Currently Amended) A stent as claimed in claim ~~1~~ 24 in combination with a device which assists in monitoring the condition of the vessel.

13. (Original) A stent as claimed in claim 12 wherein the device is a sensor adapted to transmit a signal responsive to one or more internal flow conditions.

14. (Original) A stent as claimed in claim 13 in which the sensor is ring-shaped and is electrically connected to a remote module incorporating power supply, signal detection and recording means.

15. (Previously Presented) A stent as claimed in claim 13 wherein the sensor is adapted to transmit signals which can be monitored by at least one of ultrasound, magnetic resonance imaging and electron spin resonance imaging techniques.

16. (Previously Presented) A stent as claimed in claim 13 wherein the sensor portion forms an integral part of the stent and the means of excitation and signal detection are entirely extracorporeal.

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17-23. (Cancelled)

24. (New) A stent for insertion into a vessel and having a supporting part, which stent includes a supporting portion around which, part of an intact vessel other than a graft can be placed, so that the stent internally supports that vessel part and,

the supporting portion of the stent is of a shape and/or orientation which imposes a non-planar curve on the vessel whereby fluid flow within the stent supported part of the vessel follows the non-planar curve to induce swirl flow.

25. (New) A stent according to claim 24 which is adapted to flex three dimensionally but which has sufficient torsional stiffness to induce and maintain in use the non-planar curvature.

26. (New) A stent as claimed in claim 24 fabricated from a shape memory alloy.

27. (New) A stent as claimed in claim 24 fabricated from a linked mesh or series of linked wire members which is coiled or partly coiled or helical or partly helical.

28. (New) A stent as claimed in claim 5 formed from a series of rings in which the material of the stent has the form of a wave in the azimuthal direction with link members extending in the imaginary surface of the tubular stent and joining one ring to another.

29. (New) A stent according to claim 28 in which the joints between a link member and each ring linked by the member are separated by more than the least distance between the adjacent rings.

30. (New) A stent according to claim 28 wherein the link member has a wavy form part.

31. (New) A stent according to claim 28 wherein the link member has a coil form part.

32. (New) A stent for supporting part of a vessel, which stent includes a supporting portion within which, part of an intact vessel other than a graft can be placed, so that the stent externally supports that vessel part and,

the supporting portion of the stent is of a shape and/or orientation which imposes a non-planar curve on the vessel whereby fluid flow within the stent supported part of the vessel follows the non-planar curve to induce swirl flow.

33. (New) A stent as claimed in claim 32 for supporting a part of a daughter vessel at a junction with a parent vessel and comprising a first supporting structure adapted to support or otherwise contact part of the parent vessel, with a secondary supporting structure extending away from the first supporting structure, but simultaneously capable of supporting the daughter vessel part, said secondary structure maintaining the part of the daughter vessel when located therein in non-planar curvature.

34. (New) A stent as claimed in claim 32 wherein the secondary supporting structure comprises a plurality of elongate members linked in the region of their ends remote from the first supporting structure.

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35. (New) A stent as claimed in claim 32 wherein said elongate members define a curved section whose curvature is non-planar.

36. (New) A stent as claimed in claim 32 fabricated from a shape memory alloy.

37. (New) A stent as claimed in claim 32 in combination with a device which assists in monitoring the condition of the vessel.

38. (New) A stent as claimed in claim 37 wherein the device is a sensor adapted to transmit a signal responsive to one or more internal flow conditions.

39. (New) A stent as claimed in claim 38 in which the sensor is ring-shaped and is electrically connected to a

remote module incorporating power supply, signal detection and recording means.

3, 40. (New) A stent as claimed in claim 38 wherein the sensor is adapted to transmit signals which can be monitored by ultrasound and/or magnetic resonance imaging and/or electron spin resonance imaging techniques.

41. (New) A stent as claimed in claim 39 wherein the sensor portion forms an integral part of the stent and the means of excitation and signal detection are entirely extracorporeal.
